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OFFICE OF THE  
EXECUTIVE SECRETARY

March 13, 1998

Mr. David Waddell  
Executive Director  
Tennessee Regulatory Authority  
460 James Robertson Parkway  
Nashville, TN 37243-0505

RE: BellSouth Telecommunications, Inc.'s Entry Into Long Distance  
(InterLATA) Service in Tennessee Pursuant to Section 271 of the  
(Docket No. 97-00309)

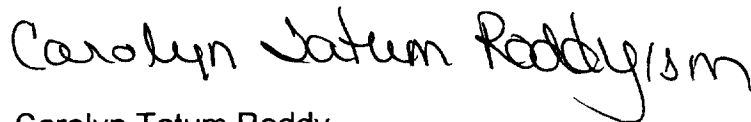
Dear Mr. Waddell:

Please find enclosed for filing the original and thirteen (13) copies of Proposed Performance Measures and Standards of Sprint Communications Company L.P. in the above-captioned matter.

An extra copy of this transmittal letter is included which I would ask that you please date stamp and return to me for my files in the enclosed self addressed, stamped envelope.

Thank you for your cooperation.

Sincerely,



Carolyn Tatum Roddy  
3100 Cumberland Circle  
Atlanta, GA 30339  
Telephone: (404) 649-6788

CTR/tm  
Enclosures  
cc: Parties of Record

**BEFORE THE**  
**TENNESSEE REGULATORY AUTHORITY**

Nashville, Tennessee,

REC'D TN  
REGULATORY AUTH.  
93 MAR 13 AM 11 38

In Re:

OFFICE OF THE  
EXECUTIVE SECRETARY

BellSouth Telecommunications, Inc.'s Entry       )  
Into Long Distance (InterLATA) Service        )  
in Tennessee Pursuant to Section 271           )  
of the Telecommunications Act of 1996           )  
Docket No. 97-00309

**PROPOSED PERFORMANCE MEASURES AND STANDARDS**  
**OF SPRINT COMMUNICATIONS COMPANY L.P.**

Comes now Sprint Communications Company L.P. ("Sprint") and files these its Proposed Performance Measures and Standards pursuant to the Tennessee Regulatory Authority ("TRA") Order Establishing Format of Technical Workshop on Performance Measures and Standards adopted March 6, 1998, in the above-captioned proceeding as follows:

**I. INTRODUCTION**

This matter arises out of the request of BellSouth Telecommunications, Inc. ("BellSouth") for entry into the interLATA telecommunications market in Tennessee pursuant to Section 271 of the Telecommunications Act of 1996 ("Act"). On February 3, 1998, the TRA adopted a procedural schedule that provided for a Technical Conference on Performance Measures to be held on March 23-24, 1998.

Parties were directed to file Comments on the format of these Workshops. The Order Establishing Format of Technical Workshops was developed after consideration of those Comments.

## **II. SPRINT SUPPORTS PERFORMANCE MEASURES AND STANDARDS DEVELOPED BY THE LOCAL COMPETITION USERS GROUP ("LCUG")**

Sprint's subject matter expert at the Performance Measures and Standards Technical Conference will be Mark T. Smith. Mr. Smith's Direct Testimony regarding Performance Measurements for Telecommunications Interconnection, Unbundling and Resale is attached. In this Direct Testimony, Mr. Smith states that Sprint strongly supports the Service Quality Measurements (SQM) document developed by the Local Competition Users Group (LCUG) and attached a copy of Version 6.1 of the LCUG performance measures as Exhibit A as a statement of Sprint's proposed Performance Measures and Standards. The LCUG performance standards propose a set of twenty-seven performance measures developed for use in the local exchange market. Sprint continues to support the LCUG Service Quality Measurements and hereby incorporates as **ATTACHMENT A** a copy of Mr. Smith's Direct Testimony with the attached LCUG Service Quality Measurements Version 6.1. This will provide a complete and accurate statement of Sprint's proposed Performance Measures and Standards for consideration by the Tennessee Regulatory Authority.

Sprint recommends that the TRA implement the performance metrics developed by LCUG as a baseline for beginning the process of measuring and reporting incumbent local exchange carrier (“ILEC”) performance in support of competitive local exchange carriers (“CLECs”). Sprint proposes that the TRA adopt the performance measurements, and measurement methodologies set forth in the LCUG Service Quality Management document. The SQM document sponsored by the LCUG will enable the TRA to begin to assess and gather data indicative of ILEC historical performance that can be shared with CLECs, and upon which ILEC performance can be evaluated. Such measurements should be required to ensure that the ILEC is providing service that is nondiscriminatory among CLECs and at least equal in quality to service provided internally or that which is equal to any relevant existing TRA standards, whichever is higher.

### **III. THERE IS AN URGENT NEED FOR PRESCRIBED PERFORMANCE STANDARDS**

Sprint believes that permanent performance measurements are essential to the creation of a competitive environment for local exchange services. While it is common business practice in non-telecommunications industries to establish performance requirements between companies and their suppliers, it is even more important in today’s emerging local exchange service markets to set performance because of the unique reliance of CLECs upon the ILEC as the sole supplier for services.

In traditional business relationships, a company that can not obtain favorable

terms from one supplier can select another that will better accommodate its requirements. CLECs, in contrast, find themselves in the difficult position of having only one supplier choice for significant portions of the network and service infrastructure required to provide local exchange service. When a CLEC is unable to obtain commitments from the ILEC for the performance requirements that its business demands, there is no alternative source with which to negotiate, and the CLEC is forced to accept the ILEC's terms. In this sense, negotiations between ILECs and CLECs are not normal commercial negotiations. This makes the TRA's role in the performance measurements arena even more important because the measures adopted can provide consistency in performance standards among CLECs, ensure achievement of minimum performance standards and provide oversight of the ILEC's progress toward nondiscrimination and parity obligations.

A unique customer/supplier relationship exists between CLECs and ILECs, in which the CLEC is totally dependent upon a dominant embedded competitor, the ILEC, as its supplier for wholesale local services. In his testimony, Mr. Smith noted that because the CLEC has no alternative or recourse if the ILEC refuses to adopt certain performance measurements, the CLEC must choose between accepting the ILEC's terms in order to move forward with its business, or continue negotiations. The result of individual negotiations in this situation becomes dependent upon the amount of time, resources and money that the CLEC is willing to invest in the process and how quickly it wants to be in the market.

In light of the situation described above, Sprint believes that the TRA is in the best position to identify, specify and monitor performance levels for its jurisdiction.

The adoption of performance measurements and calculation methodologies will provide the TRA with a factual basis for an evaluation with regards to nondiscrimination and parity that can be applied consistently across multiple CLECs.

Further, given a choice between establishing “temporary” service quality measurements and establishing more permanent measures, the TRA should opt for the establishment of the latter. The ILEC’s performance as a wholesale supplier directly affects the service experience of CLECs’ end user customers. As such, the TRA’s adoption and continued oversight of ILEC performance standards enables it to influence and protect the quality of service provided to consumers. Given the infancy of local exchange competition and the newness of the processes and systems which support CLEC service, any suggestion that the measurements be discontinued at some point is premature.

#### **IV. THE TRA SHOULD ESTABLISH SPECIFIC MEASUREMENT CATEGORIES AND METHODOLOGIES**

Sprint supports TRA development of measurement categories and methodologies, including common definitions and calculation formulas, which will be required in order to evaluate the parity obligations of ILECs pursuant to Section 251 of the Act. As a member of LCUG, Sprint worked with other LCUG members to develop the measurement categories and methodologies which were originally attached to LCI’s Petition for Proposed Rulemaking before the FCC. Measurements should compare the ILEC’s performance in support of its retail operations to the ILEC’s support of its affiliates, individual CLECs and the CLEC industry.

Performance measurements should encompass all essential Operational Support Systems (“OSS”) categories including pre-order, ordering and provisioning, maintenance and repair, network performance, unbundled elements, operator services and directory assistance, system performance, service center availability and billing. Moreover, such measures should, where possible, have common nationwide definitions and calculation methodologies. Consistent measurements will allow the TRA and other state public service commissions to monitor results across state boundaries in order to ensure nondiscriminatory treatment.

Measurement standards established for each performance element should be based upon actual ILEC support provided to its retail operations or retail analogs. In the absence of directly comparative ILEC results, levels of performance should be established based upon performance studies. This will ensure performance levels necessary to give CLECs a meaningful opportunity to compete. The measures employed must demonstrate that nondiscriminatory access is being delivered across all interfaces and a broad range of resold services and unbundled elements. The measures must also address availability, timeliness of execution and accuracy of execution. Such parity considerations will change from month to month and over time as normal process improvements drive positive change in the levels of support provided to CLECs.

## **V. THE TRA SHOULD ESTABLISH DETAILED SURVEILLANCE REPORTING IN CONJUNCTION WITH PRESCRIBED MEASUREMENTS**

There is a proactive way in which the TRA can help to ensure that the

performance measurement standards it establishes are met and maintained. In order that the ILEC's progress towards the implementation of these standards may be monitored by the TRA, the ILEC should be required to submit monthly surveillance reports, both to the TRA and to each requesting CLEC, and showing the following: the ILEC's own internal performance; its performance for affiliates of the ILEC; its performance for CLECs as a whole; and its performance for the individual CLEC to whom the report is given. These reports should contain sufficient data to enable the TRA and the CLEC in question to determine whether parity is being provided, including the raw data used to calculate performance results, as well as the measurement methodology employed.

Sprint further recommends that these surveillance reports be filed on a geographically deaveraged basis. Such reporting would reveal performance differences that may exist, for example, between service provided to retail customers in a metropolitan area facing competition compared with service provided to CLECs in the same geographic area. These discrepancies could be masked if data were only reported on a state-wide or company-wide basis. Measurement data should be reported in connection with a natural geographic area such as those currently being reported by the ILEC. However, Sprint believes that the minimum acceptable geographic area for reporting purposes should be the Metropolitan Statistical Area ("MSA").

The surveillance reports proposed above should not necessarily be the only documents regarding performance metrics submitted to the TRA. The TRA's Order in this docket should specify that ILECs and CLECs are free to negotiate additional



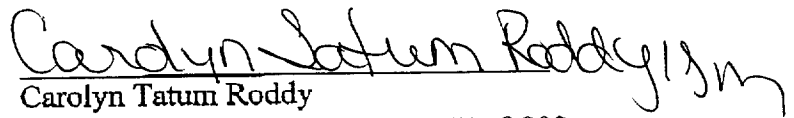
reporting as deemed necessary, in order to augment the standard reports. Further, Sprint believes that the TRA should provide CLECs with the right to conduct reasonable audits of certain components of the performance measurements surveillance reports.

## VI. CONCLUSION

In recognition of the foregoing, Sprint urges the TRA to adopt all of its recommendations in this proceeding.

Respectfully submitted this 13th day of March, 1998.

SPRINT COMMUNICATIONS COMPANY L.P.

  
Carolyn Tatum Roddy  
3100 Cumberland Circle- GAATLNO802  
Atlanta, Georgia 30339  
(404) 649-6788

Attorney for Sprint Communications Company L.P.

Q. PLEASE STATE YOUR NAME AND ADDRESS.

A. My name is Mark T. Smith. My business address is 7301 College Blvd.,  
Overland Park, KS 66210.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by Sprint Communications Company L.P. ("Sprint") as Director-  
Local Market Development.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND WORK  
EXPERIENCE.

A. I have a Master of Business Administration degree from Webster University in St. Louis MO and a Bachelor of Science degree from Purdue University in West Lafayette IN. I have been employed by Sprint for over 25 years and have been in my current position since July 1996. I began my telecommunications career in 1972 and worked in several regulatory positions for 18 years. In this capacity, I was responsible for optimizing revenue growth and regulatory compliance in PA and NJ. Key responsibilities included leading negotiations of present toll settlement plans for the State of Pennsylvania, which impacted all +40 telephone companies. I developed the first interstate access filing with subsequent FCC approval and have filed, testified and negotiated local and toll tariffs before the PA and NJ public service commissions and House of Representatives and Senate telecommunications committees. From 1989 to July 1996 I was Director-Network Markets and held four key Director level positions in the Marketing Organization. I was responsible for strategic Market Planning to position the corporation in the Two State operation to maximize sales and income. While in Pennsylvania, my latest assignment was directing the Seamless

Sprint operation for PA and NJ along with the ICSC operations, which maintains the business office functions for all interexchange carriers.

Q. WHAT ARE YOUR PRESENT RESPONSIBILITIES?

A. My present responsibilities include representation of Sprint in negotiations with ILEC's for the development and implementation of performance measurements. In addition, I am responsible for coordinating Sprint's entry into the local markets within Sprint's Local Telephone Division.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to provide input to the TRA on issues relevant to the Technical Conference on Performance Measures to be conducted on March 23-24, 1998, where performance measurements for telecommunications interconnection, unbundling, and resale will be discussed. Specifically, my testimony highlights Sprint's proposed performance measures and standards pursuant to the TRA Order Establishing Format of Technical Workshop on Performance Measures and Standards adopted March 6, 1998.

Q. WHY IS IT IMPORTANT TO SPRINT TO PROVIDE INPUT TO THIS DOCKET?

A. Sprint is a certificated CLEC in Tennessee and has executed its interconnection agreement with BellSouth in Tennessee. Accordingly, the standards and methodologies upon which BellSouth's ability to meet its nondiscrimination and parity obligations will be evaluated are vitally important to Sprint's business interests as a CLEC in Tennessee.

Q. WHY ARE PERFORMANCE MEASUREMENTS CRITICAL TO SPRINT'S FUTURE CLEC OPERATIONS?

- A. Sprint, as with other CLECs, finds itself in the difficult situation of relying totally upon a dominant embedded competitor as its primary supplier for wholesale local services. Accordingly, the incentives to provide superior service quality levels that exist in traditional supplier/customer relationships are not replicated in the CLEC environment. At the same time, Sprint must deliver superior service quality to its CLEC customers in order to remain competitive with BellSouth and to protect its reputation and brand image as a quality service provider. Unless BellSouth allows CLECs an opportunity to offer the same customer experience as is provided to its own retail customers, Sprint and other CLECs will be unable to effectively compete in the retail market.

In this environment, Sprint believes that adoption by TRA of performance measurements and standards relevant to the procurement and maintenance processes for BellSouth's wholesale CLEC services is essential to establishing parity service levels. Sprint defines performance measurement standards as the higher of parity with the ILEC or compliance with existing state commission standards. Such reporting requirements will provide empirical evidence of BellSouth's ability to meet its nondiscrimination and parity obligations. It is critical that BellSouth provide surveillance reports of performance for CLEC and retail operations and that the Commission monitor those reports.

Q. HOW SHOULD NONDISCRIMINATION IN THE CONTEXT OF PERFORMANCE MEASUREMENTS BE DEFINED?

- A. The competitive checklist in Section 271 (c) of the Telecommunications Act of 1996 ('Act') includes nondiscriminatory access to network elements. Included in this requirement for nondiscriminatory treatment are Operational Support Systems ('OSS'), which have been defined as network elements by the Federal Communications Commission ('FCC') in its First Report and Order in CC Docket

No. 96-98 (issued August 8, 1996) (“the Local Competition Order”). In the Local Competition Order, the FCC found ( at par. 525) that ILECs must provide nondiscriminatory access to OSS functions for pre-order, ordering and provisioning, maintenance and repair, and billing, both for UNEs and resold services. The FCC defined nondiscriminatory access to mean nondiscrimination between all carriers requesting access, and parity as between the service provided to CLECs and service that the ILEC provides to itself (at par. 312).

**Q. PLEASE DISCUSS WHETHER THE COMMISSION SHOULD ESTABLISH COMPARATIVE PERFORMANCE STANDARDS.**

- A. Sprint supports the development of measurement categories and methodologies, including common definitions and calculation formulas, as will be required to monitor and evaluate the nondiscrimination and parity obligations of ILECs as described in Section 251 of the Act. Sprint is a member of the Local Competition Users Group (“LCUG”), which has developed measurement categories and methodologies that have been attached to LCI’s Petition for proposed rulemaking before the FCC. Measurements should compare the ILEC’s performance in support of its retail operations to the ILEC’s support of its affiliates, individual CLECs and the CLEC industry.

These measurements should encompass all essential OSS categories including pre-order, ordering and provisioning, maintenance and repair, network performance, unbundled elements, operator services and directory assistance, system performance, service center availability and billing. Moreover, such measures should, where possible, have common nationwide definitions and calculation methodologies. Consistent measurements will allow the TRA and other state Commissions to easily monitor results across state boundaries to ensure nondiscriminatory treatment.

Measurement standards, as defined above, should be based upon actual BellSouth support provided to its retail operations or retail analogs. In the absence of directly comparative BellSouth results, standard levels of performance should be established based upon performance studies. This will ensure performance levels necessary to give CLECs a meaningful opportunity to compete. The measures employed must demonstrate that nondiscriminatory access is being delivered across all interfaces and a broad range of resold services and unbundled elements. The measures must also address availability, timeliness of execution and accuracy of execution. It is important to note that such parity considerations will change from month to month and over time as normal process improvements drive positive change in the levels of support afforded CLECs.

There may also be instances where ILEC performance falls short of existing TRA-mandated quality of service standards. In this case, the measurement objectives and methodologies should require that each function be performed equal to TRA standards.

**Q. WHY DOES SPRINT FEEL IT IS NECESSARY TO DEVELOP NATIONAL PERFORMANCE MEASUREMENT STANDARDS?**

A. As discussed above, consistent national measurements will allow the TRA and other state Commissions to easily monitor results across state boundaries to ensure nondiscriminatory treatment. In addition, nationally defined measurements and methodologies will minimize the costs to CLECs to develop the necessary performance monitoring processes and mechanisms. Developing different processes for every state or region makes it more difficult for companies to compete on a national basis.

Q. WHAT IS SPRINT'S POSITION REGARDING THE PERFORMANCE MEASUREMENTS DEVELOPED BY LCUG?

A. Sprint recommends implementation of these measures as a baseline for beginning the process of measuring and reporting ILEC performance in support of CLECs. Sprint proposes that the TRA adopt the performance measures and measurement methodologies set forth in the LCUG Service Quality Management ("SQM") document, which is attached as Exhibit "A" to my testimony. This will enable the TRA to begin to assess and gather data indicative of ILEC historical performance upon which determination of non-discriminatory performance can be evaluated. Such evaluation should be required to ensure that the ILEC is providing service that is nondiscriminatory among CLECs and at least equal in quality to service provided internally or that which is equal to any relevant existing standards adopted by a state Commission, whichever is higher.

Q. HOW CAN THE COMMISSION HELP TO ENSURE THAT THE PERFORMANCE MEASUREMENT STANDARDS IT ESTABLISHES ARE MET AND MAINTAINED?

A. In order that BellSouth's progress towards the implementation of these standards may be monitored, BellSouth should be required to submit monthly surveillance reports, both to the TRA and to each requesting CLEC, showing: (a) BellSouth's own internal performance; (b) its performance for affiliates of the ILEC; (c) its performance for CLECs as a whole; and (d) its performance for the individual CLEC to whom the report is given. These reports should include sufficient data to enable the TRA and the CLEC to determine whether parity is being provided. This would include the raw data used to calculate performance results as well as the measurement methodology employed.

Identifying the specific methodology employed is important because certain types of reporting can mask whether meaningful parity is being provided. For example, an ILEC could report that it is achieving 95% of service installations within five days for itself and CLECs. However, an examination of the raw data used in such calculations may reveal that the ILEC is filling 94% of its own orders within two days but only 5% of a CLEC's orders within this same period. For example, the disparity could be masked due to the low volume of CLEC orders. This illustrates why it's critical that both the measurement standard and the measurement methodology be prescribed.

Sprint further recommends that these surveillance reports be filed on a meaningful, geographically de-averaged basis. This would illuminate performance differences that may exist, for example, between service provided to retail customers in a metropolitan area facing competition compared with service provided to CLECs in the same geographic area. Such discrepancies could be masked if data were only reported on a state-wide or company-wide basis. Measurement data should be reported in connection with a natural geographic area such as those currently being reported by the ILEC. However, the minimum acceptable geographic area for reporting purposes should be the Metropolitan Statistical Area ("MSA").

Q. HOW IMPORTANT IS MEASUREMENT REPORTING TO ENSURE PARITY AND NONDISCRIMINATION?

- A. Measurement reporting is the cornerstone to ensuring parity and nondiscrimination. Without measurement reporting there is no factual comparative data to evaluate whether BellSouth is allowing competition to flourish in the marketplace. Without factual measurement data illustrating parity and nondiscrimination, the intent of the Act will never become reality.



Q. SHOULD THESE SURVEILLANCE REPORTS BE THE ONLY DOCUMENTS REGARDING PERFORMANCE METRICS SUBMITTED TO THE COMMISSION?

A. No, not necessarily. BellSouth and CLECs should also be free to negotiate additional reporting as deemed necessary, in order to augment the standard reports.

Q. SHOULD CLECS HAVE THE RIGHT TO AUDIT CERTAIN COMPONENTS OF THE PERFORMANCE MEASUREMENTS SURVEILLANCE REPORTS SUBMITTED BY BELL SOUTH?

A. Yes, reasonable audit rights of the reporting results and the raw data used by BellSouth in creating the report should also be required.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.

# **LOCAL COMPETITION USERS GROUP (LCUG)**

## **SERVICE QUALITY MEASUREMENTS (SQM)**

September 26<sup>th</sup>, 1997

Membership: AT&T, Sprint, MCI, LCI, WorldCom

Version 6.1

# Service Quality Measurements

## Table Of Contents

<i>Introduction</i>	<i>Page 3</i>
<i>Business Rules</i>	<i>Page 5</i>
 <b>Executive Overview:</b>	 <i>Page 7</i>
Pre-Ordering (PO)	<i>Page 8</i>
Ordering and Provisioning (OP)	<i>Page 8</i>
Maintenance and Repair (MR)	<i>Page 10</i>
General (GE)	<i>Page 12</i>
Billing (BI)	<i>Page 13</i>
Operator Services and Directory Assistance (OS, DA)	<i>Page 14</i>
Network Performance (NP)	<i>Page 15</i>
Interconnect / Unbundled Elements and Combos (IUE)	<i>Page 16</i>
<i>Formula Quick Reference Guide</i>	<i>Page 17</i>
 <b>Measurement Detail:</b>	 <i>Page 20</i>
Pre-Ordering (PO)	<i>Page 21</i>
Ordering and Provisioning (OP)	<i>Page 23</i>
Maintenance and Repair (MR)	<i>Page 33</i>
General (GE)	<i>Page 41</i>
Billing (BI)	<i>Page 45</i>
Operator Services and Directory Assistance (OS, DA)	<i>Page 49</i>
Network Performance (NP)	<i>Page 51</i>
Interconnect / Unbundled Elements and Combos (IUE)	<i>Page 52</i>
<i>Appendix A: Reporting Dimensions</i>	<i>Page 56</i>
<i>Appendix B: Glossary</i>	<i>Page 58</i>

# Service Quality Measurements

## Introduction

### Background:

On August 8, 1996, the Federal Communications Commission released its First Report and Order (the Order) in CC Docket No. 96-98 (Implementation of the Local Competition Provisions of the Telecommunications Act of 1996). The Order establishes regulations to implement the requirements of the Telecommunications Act of 1996. Those regulations are intended to enable potential competitive local exchange carriers (CLECs) to enter and compete in the local telecommunications markets. One requirement found to be “absolutely necessary” and “essential” to successful entry is that the incumbent local exchange carriers (ILECs) provide nondiscriminatory access to their operations support systems (OSSs). Many variations of interim OSS GUIs (graphic user interfaces), and electronic gateways have been or are being offered by the ILECs. These interim systems have not provided the capability for the CLECs to provide the same customer experience for their customer as compared to what the ILECs do for theirs. The timeliness and accuracy of information processed by the ILEC for pre-ordering, ordering and provisioning, maintenance and repair, unbundled elements, and billing have not, to date, been satisfactory. The service delivery problems exist regardless whether total service resale or unbundled elements are utilized. Final solutions for application-to-application real time system interfaces are evasive because of the complexity, the diversity of committed implementation schedules and lack or inconsistent use of industry guidelines.

On February 12, 1997 the Local Competition Users Group (LCUG) issued their “Foundation For Local Competition: Operations Support Systems Requirements For Network Platform and Total Services Resale. The core principles contained in the document are: Service Parity, Performance Measurement, Electronic Interfaces, Systems Integrity Notification of Change, and Standards Adherence. Each of these are significant to ensure CLEC customers can receive at least equal levels of service to those the ILEC provides to its own customers. The LCUG group indicated that it was essential that a plan be developed to measure the ILECs performances for all the essential OSS categories (e.g. pre-ordering, ordering and provisioning, maintenance and repair, network performance, unbundled elements, operator services and directory assistance, system performance, service center availability and billing). To that end, an LCUG sub-committee was formed with a charter to address measurements and metrics. The subcommittee jointly developed a comprehensive list of potential measurements which was developed and shared among the team members for review. Each committee member researched an assigned measurement group for the purpose of proposing consolidation and other modifications. The subcommittee discussed each measurement and considered existing regulatory requirements (minimum service standards) as well as good business practices in arriving at the recommended measurement and extent of detail to be reported. The service quality measurement (SQM) goals, or benchmark levels of performance, were established to provide a nondiscrimination standard in the absence of directly comparative ILEC results. Establishing precise benchmark level was difficult because the ILECs have been reluctant to share actual results. The goals, therefore, were based upon best of class and/or an assessment of the necessary performance to support a meaningful opportunity for CLECs to compete. The SQM goals may change if the ILECs share historical and/or self report current results.

### Measurement Plans:

A measurement plan, capable of monitoring for discriminatory behavior, must incorporate at least the following characteristics; 1) it permits direct comparisons of the CLEC and CLEC industry experience to that of the ILEC through recognized statistical procedures, 2) it accounts for potential performance variations due to differences in service and activity mix, 3) it measures not only retail services but experiences with UNEs and OSS interfaces, and 4) it produces results which demonstrate the nondiscriminatory access to OSS functionality is being delivered across all interfaces and a broad range of resold services and unbundled elements. The measures employed must address availability, timeliness of execution, and accuracy of execution.

# Service Quality Measurements

## Introduction

It is essential that the CLECs be able to determine that they are receiving at least equal treatment to that ILECs provide to their own retail operations or their local service affiliates. Benchmarks and performance standards that are voluntarily adopted by the CLECs and ILECs, or ordered by commissions, need to clearly demonstrate that new service providers are receiving nondiscriminatory treatment.

This document discusses measurements at both a summary level (Executive Overview) and at a level suitable for starting the implementation process (Measurement Detail)

# Service Quality Measurements

## Business Rules

### **Test for Parity:**

#### **ILEC Reports Results For Own Local Operations:**

Both the average (mean) result and the variance of the measurement result for the ILEC and the CLEC should be compared to establish that the CLEC result is no worse than the ILEC's result.

#### **ILEC Results Are Not Reported Or Results Are Incomplete:**

The mean result for CLEC must be compared and a determination made that the CLEC result is no worse than the benchmark performance level. The benchmark performance to be employed in the comparison is the result produced via special study by an ILEC (as described below) or, in the absence of such a study result, the LCUG default performance benchmarks.

#### **Benchmarking Study Requirements:**

A special study may be optionally utilized by the ILEC to establish the benchmark performance level whenever a reasonable ILEC retail analog does not exist. When the ILEC performs a benchmarking study, it must be based upon equivalent experiences of that ILEC and conform to the following minimum requirements: (1) a benchmark result is provided for each reporting dimension described for the measurement; (2) the mean, standard error, and number of sample points are disclosed for each benchmark result; (3) the study process and benchmark results may be subjected to independent audit; (4) update to the benchmark result will be submitted whenever changes may reasonably be expected to impact the study results or six months has elapsed since the conduct of the prior study, whichever occurs earlier. Unless directly ordered by the appropriate regulatory commission, no ILEC benchmark will be utilized in lieu of an LCUG benchmark without mutual agreement of the CLECs impacted by use of the benchmark

#### **Reporting Expectations and Report Format:**

CLEC results for the report month are to be shown in comparison to the ILEC result for the same period with an indication, for each measurement result, where the CLEC result is lesser in quality compared to the ILEC (based upon the test for parity described in the preceding). Such detailed results will be reported only to the CLEC unless written permission is provided to do otherwise. Furthermore, reporting to the individual CLECs should include, for each measure, a representation of the dispersion around the average (mean) of the measured results for the reporting period (e.g. percent of 1-4 lines installed in the 1<sup>st</sup> day, 2<sup>nd</sup> day, 3<sup>rd</sup> day, and > 10 days, etc.) In addition to providing the preceding detailed results, the ILEC must also supply, to each interested CLEC, a report showing the ILEC performance for each measure in comparison to both CLEC industry in aggregate and the performance delivered to any affiliate(s) of the ILEC.

#### **Delivery of Reports and Data:**

# Service Quality Measurements

## Business Rules

Reports are to be made available to CLEC by the 5th scheduled business day following the close of the calendar report month. If requested by the CLEC, data files of raw data are to be transmitted by the ILEC to the CLEC on the 5th scheduled business day pursuant to mutually acceptable format, protocol and transmission media.

### **Geographic Reporting:**

Measurement data should be reported on a natural geographic area that allows prudent operational management decisions to be made and does not obscure actual performance levels. Presently ILECs report at levels as discrete as individual exchanges (Central Office) to as aggregated as the Region level. The recommended default level of reporting is the MSA although further detail should be required where it improves the ability to make meaningful comparisons..

### **Verification and Auditing:**

By joint request of more than one CLEC, an audit of the data collecting, computing and reporting processes must be permitted by the ILEC. The ILEC must also permit an individual CLEC to audit or examine its own results pursuant to terms no more restrictive than those established between the CLEC and the ILEC in the interconnection agreement for the operating area underlying the reported results.

During implementation of the measurement reporting, validation of results of data collection, measurement result computation and report production will be necessary. The ILEC must permit such validation activities and not subsequently contend that an individual CLEC has undertaken an audit either under the terms of the measurement plan or pursuant to the terms of the CLEC's interconnection agreement.

### **Adaptation:**

Technology, market conditions and industry guidelines/standard continue to evolve. LCUG reserves the right to modify the content of this document, adding, deleting or making modification, as necessary to reflect such changes.

# Service Quality Measurements

## Executive Overview

### **This Executive Overview section:**

- Provides a summary of the detailed requirements
- Enables a quick overview and understanding of the proposed LCUG measurements
- Summarizes the Business Implications associated with each measurement
- Accommodates a target audiences who have a need to know about the measurements but not the specific details

<b>Executive Overview:</b>	Page 7
Pre-Ordering (PO)	Page 8
Ordering and Provisioning (OP)	Page 8
Maintenance and Repair (MR)	Page 10
General (GE)	Page 12
Billing (BI)	Page 13
Operator Services and Directory Assistance (OS, DA)	Page 14
Network Performance (NP)	Page 15
Interconnect / Unbundled Elements and Combos (IUE)	Page 16
<i>Formula Quick Reference Guide</i>	Page 17



# Service Quality Measurements

## Executive Overview

### Pre-Ordering (PO)

<b>Function:</b>	
Average Response Interval for Pre-Ordering Information	
<b>Business Implications:</b>	
<ul style="list-style-type: none"> <li>The CLEC customer service agent must establish such basic facts as availability of desired features, likely service delivery intervals, the telephone number to be assigned and the validity of the street address while the customer (or potential customer) is on the phone</li> <li>It is critical that the CLEC be perceived as equally competent, knowledgeable and fast as an ILEC customer service agent</li> <li>This measure is designed to monitor the time required for CLECs to obtain the pre-ordering information necessary to establish and modify service</li> <li>Comparison to the ILEC results allow conclusions whether an equal opportunity exists for the CLEC to deliver a comparable customer experience (compared to the ILEC) when a retail customer calls the CLEC with a service inquiry</li> </ul>	
<b>Measurements:</b>	<b>Results Detail:</b>
<ul style="list-style-type: none"> <li>Average Response Interval for Pre-Ordering Information</li> </ul>	<ul style="list-style-type: none"> <li>Major Pre-ordering Query Type</li> </ul>

### Ordering and Provisioning (OP)

<b>Function:</b>	
Order Completion Intervals	
<b>Business Implications:</b>	
<ul style="list-style-type: none"> <li>When the CLEC commits to a due date for service delivery, the customer plans for service availability at that point and will be dissatisfied if the requested service or feature is not delivered when promised</li> <li>The “average completion interval” measure monitors the time required by the ILEC to deliver integrated and operable service components requested by a CLEC, regardless of whether services resale or unbundled network elements are employed</li> <li>When the service delivery interval of the ILEC is measured for comparable services, then conclusion can be drawn regarding whether or not CLECs have a reasonable opportunity to compete for customers</li> <li>The “average completion interval” and “percent completed on time” may prove useful in detecting developing capacity issues</li> </ul>	
<b>Measurements:</b>	<b>Results Detail:</b>
<ul style="list-style-type: none"> <li>Mean Completion Interval</li> <li>Percent Orders Completed on Time</li> </ul>	<ul style="list-style-type: none"> <li>By Major Service Family and Order Type</li> </ul>

# Service Quality Measurements

## Executive Overview

<b>Function:</b>	
Order Accuracy	
<b>Business Implications:</b>	
<ul style="list-style-type: none"> <li>Customers expect that their service provider will deliver precisely the service ordered and all the features specified</li> <li>This measurement monitors the accuracy of the provisioning work performed by the ILEC in response to CLEC orders</li> </ul>	
<b>Measurements:</b>	<b>Results Detail:</b>
<ul style="list-style-type: none"> <li>Percent Order Accuracy</li> </ul>	<ul style="list-style-type: none"> <li>By Major Service Family</li> </ul>

<b>Function:</b>	
Order Status	
<b>Business Implications:</b>	
<ul style="list-style-type: none"> <li>When a customer calls their service providers, they expect to be able to promptly get the information regarding the progress on their order(s)</li> <li>When changes must be made, such as to the expected delivery date, customers expect that they will be immediately notified so that they may modify their own plans</li> <li>The order status measurements monitor, when compared to the ILEC result, that the CLEC has timely access to order progress information so that the customer may be updated or notified, early on, when changes and rescheduling are necessary</li> </ul>	
<b>Measurements:</b>	<b>Results Detail:</b>
<ul style="list-style-type: none"> <li>Mean Reject Interval</li> <li>Mean FOC Interval</li> <li>Mean Jeopardy Interval</li> <li>Mean Completion Interval</li> <li>Percent Jeopardies Returned</li> </ul>	<ul style="list-style-type: none"> <li>By Status Type and Order Type</li> </ul>

<b>Function:</b>	
Held Orders	
<b>Business Implications:</b>	
<ul style="list-style-type: none"> <li>Customers expect that work will be completed when promised</li> <li>There must be assurances that the average period that CLEC orders are held, due to a delayed completion, is no worse for the CLEC when compared to ILEC orders</li> </ul>	
<b>Measurements:</b>	<b>Results Detail:</b>
<ul style="list-style-type: none"> <li>Mean Held Order Interval</li> <li>Percent Orders Held <math>\geq</math> 90 Days</li> <li>Percent Orders Held <math>\geq</math> 15 Days</li> </ul>	<ul style="list-style-type: none"> <li>By Major Service Family and Reason for Hold</li> </ul>

# Service Quality Measurements

## Executive Overview

### Maintenance and Repair (MR)

<b>Function:</b>	
Time To Restore	
<b>Business Implications:</b>	
<ul style="list-style-type: none"> <li>Customers expect prompt restoral of service to the normal operating parameters whenever troubles are detected</li> <li>The longer the time required to correct a service problem, the greater the customer dissatisfaction</li> </ul>	
<b>Measurements:</b>	<b>Results Detail:</b>
<ul style="list-style-type: none"> <li>Mean Time to Restore</li> </ul>	<ul style="list-style-type: none"> <li>By Major Service Family and Trouble Type</li> </ul>

<b>Function:</b>	
Frequency of Repeat Troubles	
<b>Business Implications:</b>	
<ul style="list-style-type: none"> <li>This measurement, when gathered for both the ILEC and CLEC can establish whether or not CLECs are competitively disadvantaged (vis-à-vis the ILEC) as a result of experiencing more frequent occurrence of customer troubles not being resolved in the first attempt to repair the trouble</li> <li>Differences in this measure may indicate that the CLEC is receiving inferior maintenance support in the initial resolution of troubles or, in the alternative, it may indicate that the network components supplied are of inferior quality</li> </ul>	
<b>Measurements:</b>	<b>Results Detail:</b>
<ul style="list-style-type: none"> <li>Repeat Trouble Rate</li> </ul>	<ul style="list-style-type: none"> <li>By Major Service Family and Trouble Type</li> </ul>

<b>Function:</b>	
Frequency of Troubles (Troubles per 100 Lines)	
<b>Business Implications:</b>	
<ul style="list-style-type: none"> <li>Customers demand high quality service performance from their supplier and differentials in performance are quickly recognized throughout the market place</li> <li>When measured for both the ILEC and CLEC and compared, this measure can be used to establish that CLECs are not competitively disadvantaged, compared to ILEC, as a result of experiencing more frequent incidents of trouble reports</li> <li>Disparity in this measure may indicate differences in the underlying quality of the network components supplied</li> </ul>	
<b>Measurements:</b>	<b>Results Detail:</b>

# Service Quality Measurements

## Executive Overview

• Trouble Rate	• By Major Service Family and Trouble Type
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# Service Quality Measurements Executive Overview

<b>Function:</b>	
Estimated Time To Restore Met	
<b>Business Implications:</b>	
<ul style="list-style-type: none"> <li>When customers experience trouble on working services, they naturally expect the services to be restored within the time frame promised</li> <li>When this measure is collected for the ILEC and CLEC and then compared, it can be used to establish that CLECs are receiving equally reliable (as compared to the ILEC operations) estimates of the time required to complete service repairs</li> </ul>	
<b>Measurements:</b>	<b>Results Detail:</b>
<ul style="list-style-type: none"> <li>Percentage of Customer Troubles Resolved Within Estimate</li> </ul>	<ul style="list-style-type: none"> <li>By Major Service Family and Trouble Type</li> </ul>

# Service Quality Measurements

## Executive Overview

General (GE)

<b>Function:</b>	
Systems Availability	
<b>Business Implications:</b>	
<ul style="list-style-type: none"> <li>Access to essential business functionality, supported by OSS of the ILEC, is absolutely essential to CLEC operations</li> <li>This measure monitors that such OSS functionality is at least as accessible to the CLEC as to the ILEC</li> </ul>	
<b>Measurements:</b>	<b>Results Detail:</b>
<ul style="list-style-type: none"> <li>Percent System Availability</li> </ul>	<ul style="list-style-type: none"> <li>By Function Interface</li> </ul>

<b>Function:</b>	
Center Responsiveness	
<b>Business Implications:</b>	
<ul style="list-style-type: none"> <li>When CLECs experience operational problems dealing with ILEC processes or interfaces, prompt support by the ILEC is required in order to assure that the CLEC customers are not adversely impacted</li> <li>Any delay in responding to CLEC center requests for support (e.g., request for a vanity telephone number) will, in turn, adversely impact the CLEC retail customer who may be holding on-line with the CLEC customer service agent</li> <li>This measure, when gathered for both the CLEC and ILEC, supports monitoring that ILEC handling of support calls from CLECs is at least as responsive as for calls by ILEC retail customers seeking assistance (e.g., calling the business office of the ILEC or call the ILEC to report service repair issues)</li> </ul>	
<b>Measurements:</b>	<b>Results Detail:</b>
<ul style="list-style-type: none"> <li>Mean Time to Answer Calls</li> <li>Call Abandonment Rate</li> </ul>	<ul style="list-style-type: none"> <li>By Support Center Provided</li> </ul>

# Service Quality Measurements

## Executive Overview

### Billing (BI)

<b>Function:</b>	
Timeliness Of Billing Record Delivery	
<b>Business Implications:</b>	
<ul style="list-style-type: none"> <li>Regardless whether the billing is for retail customer or exchange access service, the timing of ILEC delivery of billing records must provide CLECs with the opportunity to deliver timely bills in as timely a manner as the ILEC; otherwise artificial competitive advantage would be realized by the ILEC</li> </ul>	
<b>Measurements:</b>	<b>Results Detail:</b>
<ul style="list-style-type: none"> <li>Mean Time to Provide Recorded Usage Records</li> <li>Mean Time to Deliver Invoices</li> </ul>	<ul style="list-style-type: none"> <li>By Type of Usage (End User Direct Bill, End User Alternately Billed, or Access) or By Type of Invoice (TSR or UNE)</li> </ul>

<b>Function:</b>	
Accuracy of Billing Records	
<b>Business Implications:</b>	
<ul style="list-style-type: none"> <li>The accuracy of billing records affects the accuracy of the billing ultimately delivered to local service customers, whether retail service or exchange access service customers</li> <li>Billing for the elements from which CLEC services are constructed must be validated to assure that only correct charges are paid</li> </ul>	
<b>Measurements:</b>	<b>Results Detail:</b>
<ul style="list-style-type: none"> <li>Percent Invoice Accuracy</li> <li>Percent Usage Accuracy</li> </ul>	<ul style="list-style-type: none"> <li>By Type of Usage (End User Direct Bill, End User Alternately Billed, or Access) or By Type of Invoice (TSR or UNE)</li> </ul>

# Service Quality Measurements

## Executive Overview

### Operator Services and Directory Assistance (OS, DA)

<b>Function:</b>	
Speed To Answer	
<b>Business Implications:</b>	
<ul style="list-style-type: none"> <li>In order to assure that an unjustified competitive advantage is not created for the ILEC, the speed of answer delivered to CLEC retail customers, when the ILEC provides Operator Services or Directory Services on behalf of the CLEC, must be no slower than the speed of answer that the ILEC delivers to its own retail customers of equivalent local services</li> </ul>	
<b>Measurements:</b>	<b>Results Detail:</b>
<ul style="list-style-type: none"> <li>Mean Time to Answer</li> </ul>	<ul style="list-style-type: none"> <li>Operator Services and Directory Service Separately Reported Detailed, for each Service by Machine and Human Answer Time</li> </ul>



# Service Quality Measurements

## Executive Overview

### Network Performance (NP)

Function:	
Network Performance Parity	
Business Implications:	
<ul style="list-style-type: none"><li>• The perceived quality of CLEC retail services, particularly when either ILEC services are resold or UNE combinations are employed, will be heavily influenced by the underlying quality of the ILEC network performance</li><li>• Customers experience the quality of the service provider each time services are used</li></ul>	
Measurements:	Results Detail:
<ul style="list-style-type: none"><li>• Network Performance Parity</li></ul>	<ul style="list-style-type: none"><li>• Transmission Quality</li><li>• Speed Of Connection</li><li>• Reliability</li></ul>

# Service Quality Measurements

## Executive Overview

### Interconnect / Unbundled Elements and Combos (IUE)

<b>Function:</b>	
Availability of Network Elements	
<b>Business Implications:</b>	
<ul style="list-style-type: none"> <li>Because CLECs use individual elements as well as element combinations to deliver unique services, it is essential that the UNE functionality operate properly due to the crucial role played by such elements in providing quality retail services</li> <li>This measure monitors individual network element or element combinations, that do not have an apparent retail analog, to assure that CLECs have a meaningful opportunity to compete through access to and use of element (or combination) functionality</li> </ul>	
<b>Measurements:</b>	<b>Results Detail:</b>
<ul style="list-style-type: none"> <li>Availability of Network Elements</li> </ul>	<ul style="list-style-type: none"> <li>By Unique UNE or UNE Combination employed (e.g., A-Link, D-Link, SCPs/Databases, SCPs/Databases Correctly Updated, Loop Combo Availability)</li> </ul>

<b>Function:</b>	
Performance of Network Elements	
<b>Business Implications:</b>	
<ul style="list-style-type: none"> <li>As CLECs use individual elements (as well as element combinations) to deliver unique services, it is essential that the UNE functionality operates in a timely manner because of the crucial role played by such elements in providing quality retail services</li> </ul>	
<b>Measurements:</b>	<b>Results Detail:</b>
<ul style="list-style-type: none"> <li>Timeliness of Element Performance</li> </ul>	<ul style="list-style-type: none"> <li>By Unique UNE or UNE Combination employed (e.g., LIDB Query time out)</li> </ul>

## CERTIFICATION OF SERVICE

I hereby certify that I have this day served a true and exact copy of the within and foregoing Proposed Performance Measures and Standards of Sprint Communications Company L.P. in Docket No. 97-00309, via United States mail, postage paid and properly addressed to the following:

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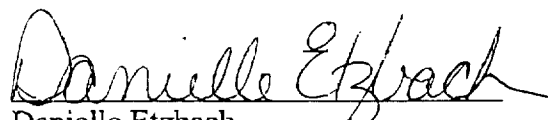
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